

Remarks

The title is amended to be directed to the generation of plants with improved drought tolerance, as the claims are currently specifically directed to plants with increased drought tolerance and methods of producing increased drought tolerance in a plant. Applicants respectfully request that the Office acknowledge the amendment of the title in a subsequent communication.

Prior to this amendment, claims 3-11 were pending (of which claims 8-10 are withdrawn). Claims 3 and 5 are amended herein. New claims 13-16 are added herein.

Support for the amendment of claims 3 and 5 can be found in the specification at paragraph [0019]. Claim 5 is also amended to correct a minor typographical error. Withdrawn claim 8 is amended to parallel the scope of the examined claims. Support for new claims 13 and 14 can be found in the specification at least at paragraph [0019]. Support for new claim 15 can be found in the specification at least at paragraphs [0004] and [0009]. Support for new claim 16 can be found in the specification at least at paragraph [0029] through [0037].

No new matter is introduced by the foregoing amendments. This filing is appropriate after final rejection because it will not require further search or examination in order for the case to be allowed, it enters suggestions discussed with the Examiner, and/or it places the case in better position for appeal should such become necessary. After entry of this amendment, **claims 3-16 are pending in this application (of which claims 8-10 are withdrawn)**. Consideration and allowance of the pending claims is requested.

Rejoinder of Claims

Applicants thank Examiner Ibrahim for rejoining and examining claim 4 with claims 3, 5-7, and 11.

In accordance with the current Patent and Trademark Office Guidelines for Restriction Requirements in TC1600, Applicants respectfully request that once the pending composition

claims are allowed, method claims which depend from or otherwise include all the limitations of allowed composition claims be rejoined and examined.

Inventorship and Priority Claim

Applicants also thank Examiner Ibrahim for acknowledging the correction of inventorship. Applicants wish to remind the Examiner that the priority claim was amended in the Amendment and Response submitted on March 29, 2007, in order to remove the priority claim to International Application No. PCT/US03/12981 (hereinafter the '981 application). Both the priority claim and inventorship were amended to take into account that the claims are currently specifically directed to plants with increased drought tolerance and methods of producing increased drought tolerance in a plant (not increased pathogen resistance and/or drought tolerance). Applicants respectfully request that the Office acknowledge the amendment of the priority claim in a subsequent communication.

Examiner Interview

Applicants thank Examiner Ibrahim for the telephone interview with their representative, Anne Carlson, Ph.D., on March 11, 2008, during which the correction of inventorship and the priority claim were discussed. Also discussed was the rejection under 35 U.S.C. §112, first paragraph. Applicants believe that the claims, as amended, implement the Examiner's suggestions.

Rejection of the claims under 35 U.S.C. §112, first paragraph

Claims 3 and 5-7 are rejected under 35 U.S.C. §112, first paragraph as allegedly failing to comply with the written description requirement. Applicants respectfully traverse this rejection. Solely to advance prosecution in this case, claim 1, part (c) and claim 5, part (a) are amended to recite "wherein the ortholog has at least 85% sequence identity to the sequence set forth as SEQ ID NO: 2".

As established in *Ex parte Parks*, "adequate description under the first paragraph of 35 U.S.C. 112 does not require literal support for the claimed invention. . . . Rather, it is sufficient if the originally-filed disclosure would have conveyed to one having ordinary skill in the art that an

appellant had possession of the concept of what is claimed” *Ex parte Parks*, 30 USPQ2d 1234, 1236-37 (B.P.A.I. 1993) (emphasis added). Moreover, the MPEP at §2163 states that “[w]hat is conventional or well known to one of skill in the art need not be disclosed in detail. See *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d at 1384,231 USPQ at 94. If a skilled artisan would have understood the inventor to be in possession of the claimed invention at the time of filing, even if every nuance of the claims is not explicitly described in the specification, then the adequate description requirement is met. See, e.g. *Vas-Cath*, 935 F.2d at 1563, 19 USPQ2d at 1116; *Martin v. Johnson*, 454 F.2d 746, 751, 172 USPQ 391, 395 (CCPA 1972) (stating “description need not be in *ipsis verbis* [i.e., “in the same words”] to be sufficient”).”

In the current instance, the original disclosure clearly conveys that Applicants had possession of the claimed invention, and certainly of the concept of what is currently claimed. Applicants had possession of the polypeptide sequence in SEQ ID NO: 2; Applicants had also contemplated and provided explicit written description of polypeptides with at least 85%, 90%, or 95% sequence identity to that sequence (for example, paragraph [0019]). Further, the specification describes how to determine which sequences have at least 85%, 90%, or 95% sequence identity to SEQ ID NO: 2 (for example, paragraph [0022]). Methods are also provided for determining which residues are highly conserved (for example, paragraph [0025]) and how to make polypeptide variants (for example, paragraph [0026]), for the generation of transgenic plants (paragraph [0027]), and for determining if a plant (particularly a transgenic plant) is drought tolerant (for example, Examples 1, 3, 7, and 8).

The specification at paragraph [0057] also teaches that functional domains of the PRDT1 polypeptide (such as a SANT domain) can be identified using algorithms well known to those of skill in the art (such as the PFAM program). Thus, based on the teachings of the specification, one of skill in the art would be able to identify which *Arabidopsis* orthologs having at least 85% sequence identity with SEQ ID NO: 2 also comprise a SANT domain and have DNA-binding activity. In addition, the specification at paragraph [0015] clearly describes that functionally active orthologs of the PRDT1 polypeptide (SEQ ID NO: 2) cause (i) “an altered . . . drought tolerance phenotype when mis-expressed in a plant,” and (ii) are “capable of rescuing defective (including deficient) endogenous PRDT1 activity when expressed in a plant or in plant cells,”

and (iii) that “[s]ome preferred PRDT1 polypeptides display DNA binding activity.” Thus, the specification also clearly describes chemical, physical, or any other relevant identifying characteristics that relate to orthologs of the PRDT1 polypeptide (SEQ ID NO: 2).

The Office is reminded that the description of a representative number of species does not require the description to be of such specificity that it would provide individual support for each species that the genus embraces. Guidelines for Examination of Patent Applications under the 35 U.S.C. § 112, ¶ 1, “Written Description” Requirement 66 Fed. Reg. 1099, 1106 (2001). Satisfactory disclosure of a “representative number” depends on whether one of skill in the art would recognize that Applicants were in possession of the necessary common attributes or features of the elements possessed by the members of the genus in view of the species disclosed. *Id.* Applicants submit that the knowledge and level of skill in the art would allow a person of ordinary skill to envision sequences having at least 85%, 90%, or 95% sequence identity to the sequence set forth in SEQ ID NO: 2 based on the teachings of the specifications and the provision of SEQ ID NO: 2 itself. The pending claims are sufficiently described by the specification, and Applicants request that the rejection under 35 U.S.C. § 112, first paragraph, be withdrawn.

Applicants respectfully submit that one of skill in the art reading the specification would recognize that Applicants had possession of the claimed invention in its full scope at the time the application was filed. Applicants respectfully request that this rejection of claims 3 and 5-7 for lack of adequate written description be withdrawn.

Nonstatutory Obviousness-Type Double Patenting

Claims 3, 5-7, and 11 are provisionally rejected on the grounds of nonstatutory obviousness-type double patenting as allegedly being unpatentable over claims 1-7 and 11-14 of co-pending U.S. Patent Application No. 10/512,600. Applicants disagree with this assertion. However, solely in the interest of accelerating prosecution, Applicants will submit a terminal disclaimer that disclaims the terminal portion of any patent granted in this application that would extend beyond the expiration date of a patent that issues from U.S. Patent Application No.

10/512,600. Applicants believe that the submission of a terminal disclaimer will obviate the double patenting rejection.

Conclusion

Based on the foregoing amendments and arguments, the claims are in condition for allowance and notification to this effect is requested. If for any reason the Examiner believes that a telephone conference would expedite allowance of the claims, please telephone the undersigned at the number listed below.

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